

**121. On the External and Internal Characters of  
the Bony Fishes of the Genus *Vegetichthys*,  
with a Description of One New Species.<sup>1)</sup>**

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In 1917 Tanaka<sup>2)</sup> described a new genus and species of a percoid fish, *Vegetichthys tumidus*, and referred it to Lutianidae. This species was synonymized by the same author<sup>3)</sup> in 1931 with *Caesio erythrogaster* Kuhl and Van Hasselt which belongs to Haemulidae. A careful examination of the external characters has shown that Tanaka's species is identical with *Caesio* (*Paracaesio*) *xanthurus* Bleeker.<sup>4)</sup> But the genus *Vegetichthys* appears to be valid on the basis of the following account of my study which was done at the suggestion of Prof. A. Terao and Asst. Prof. K. Matsubara to whom my hearty thanks are due for many acts of kindness.

*Vegetichthys* Tanaka, emend.

Body ovoid, compressed, covered with ctenoid scales. Head rounded, compressed, naked; mouth oblique; upper jaw moderately protractile; nostrils close together, the anterior one with cutaneous valve; the jaw with band of villiform teeth, besides which is usually an outer series of larger teeth in each jaw, and 4 to 6 conical canines in each jaw; vomer and palatines with villiform teeth; no teeth on tongue; posterior limb of preopercle finely serrated.

Dorsal fin continuous; no scales on dorsal and anal; D. X, 10; A. III, 8; pectoral falcate, not shorter than head; caudal deeply forked. Branchiostegal 6. Interorbital area not flat; occipital crest very high, reaching anterior margin of eye. Surface of stomach with many large conical projections (Figs. 1 B and 2 B) Air bladder simple. Pyloric coeca few. Vertebrae 10 + 14.

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1) Contributions from Zoological Laboratory, Imperial Fisheries Institute, Tokyo, No. 32.

2) Tanaka, S. Eleven new species of fishes. *Dôbutsu-gaku Zasshi* (Zoological Magazine), **29** (339), 1917, p. 7 (in Japanese).

3) On the distribution of fishes in Japanese waters. *Jour. Fac. Sci. Imp. Univ. Tokyo*, Sec. IV, Zool., **3** (1), 1931, p. 29.

4) *Vide*: Fowler, H. W. The fishes of the families Pseudochromidae, ..... collected by ..... "Albatross" chiefly in Philippine Sea and adjacent waters. *U. S. N. M. Bull.* 100, Vol. II, 1931, p. 204; Schmidt, P. J. Fishes of Japan, collected in 1901. *Trans. Pac. Comm. Acad. Sci. USSR*, **2**, 1931, p. 63, fig. 9.

Type: *Caesio* (*Paracaesio*) *xanthurus* Bleeker.

This genus shows much resemblance to *Pristipomoides*, but differ from it in having the cranium not so broad and flattish, and in having the last rays of dorsal and anal shorter.

From *Caesio* it is distinguished by the presence of protrusions in ethmoid and the absence of scales on dorsal and anal. In the characters of the skull this genus is rather near to *Parapristoma*.

The account given above is based on two sets of male specimens obtained from Tokyo fish market, the locality being labelled Hatizyô Is., Prov. Idu. One set consists of two males referable to *Vegetichthys xanthurus* (Bleeker) which is rather common in southern Japan and known as "Umeiro." The other includes two males of a fish by the name of "Ao-dai" (blue snapper) which is not so rare in southern Japan but proved to be new to science. Hence the following description.

*Vegetichthys caeruleus*, n. sp.

Head<sup>1)</sup> 3.57 in body length; depth 2.81; depth of caudal peduncle 2.73 in head; snout 4.10; orbit 3.90; interorbital space 2.73; maxillary 2.82; preorbital width 4.82.

1) In the description the length of the head is measured from tip of snout to posterior border of opercular flap. The length of the snout is the distance between the tip of upper jaw and the anterior edge of the orbit. The length of the body is measured from tip of snout to the base of caudal fin.

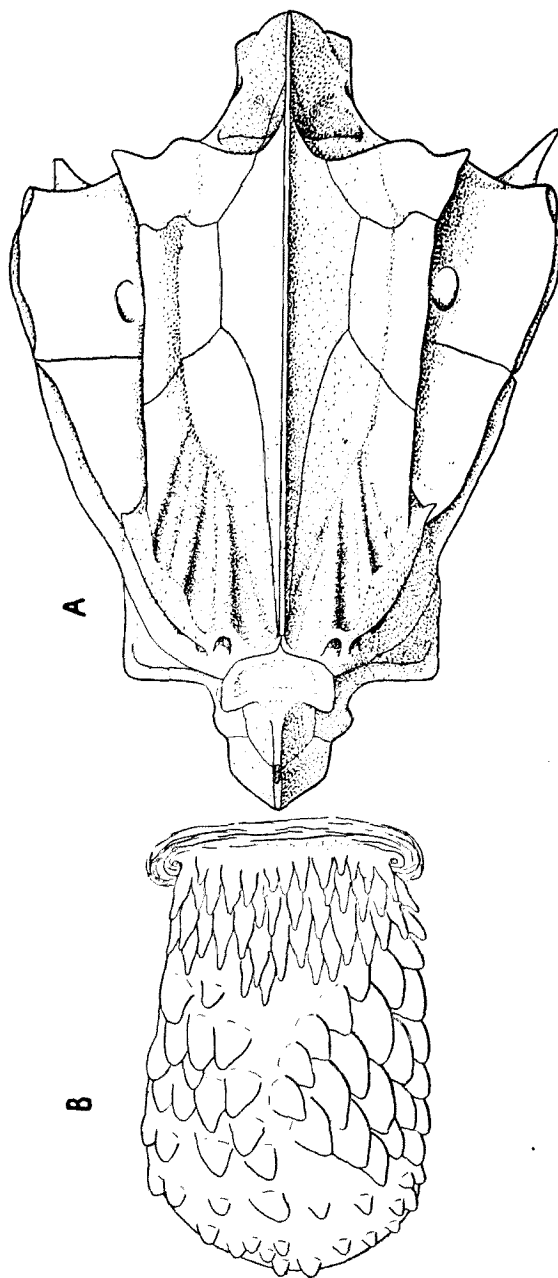


Fig. 1. *Vegetichthys xanthurus* (Bleeker) A, upper view of skull,  $\times \frac{3}{2}$ ; B, inverted stomach,  $\times \frac{8}{10}$ .

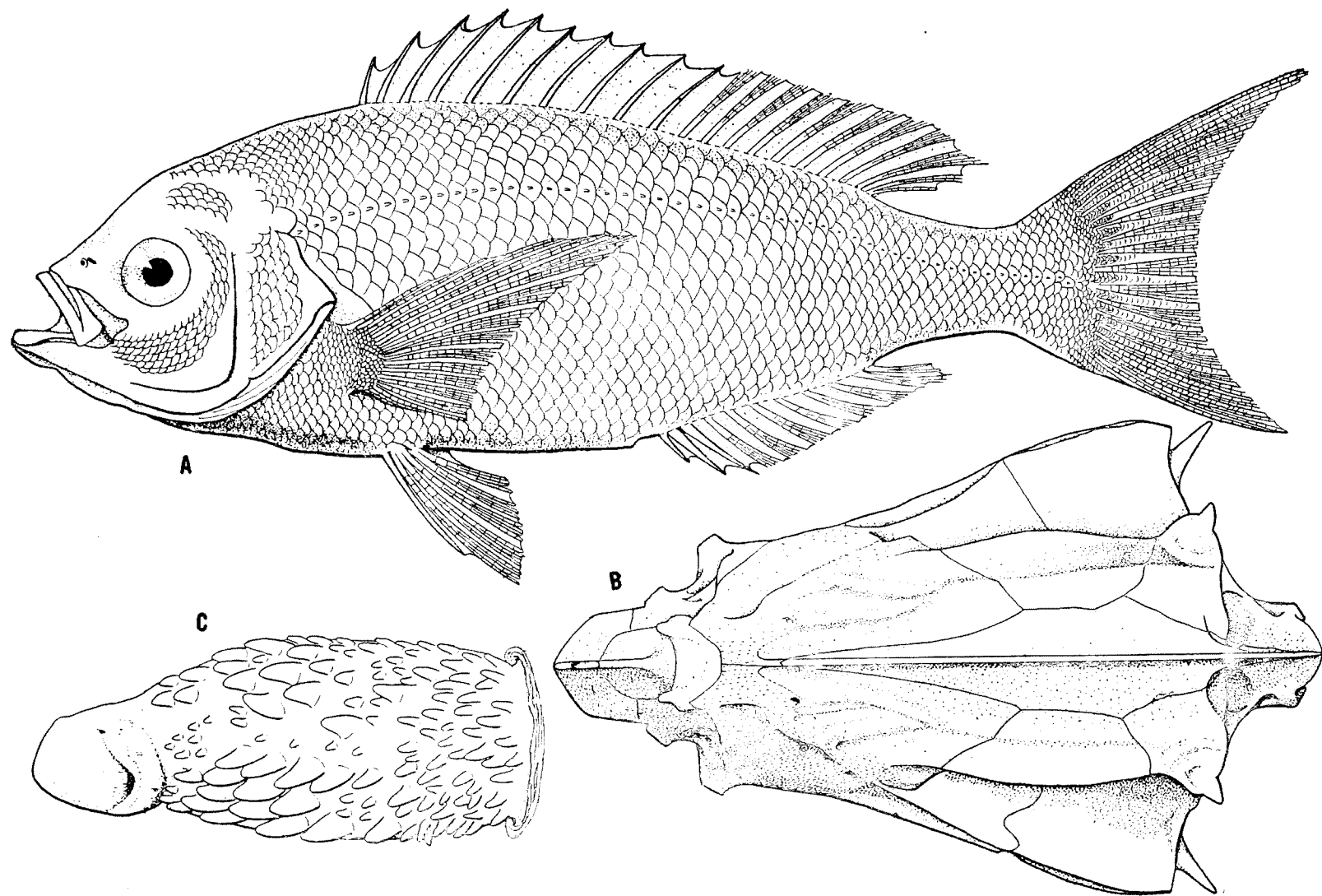


Fig. 2. *Vegetichthys caeruleus*, n.sp. A, side view,  $\times \frac{3}{20}$ ; B, upper view of skull,  $\times 3$ ; C, inverted stomach,  $\times \frac{9}{10}$ .

D. X, 10 A. III, 8; V. I, 5; P. 15; pored scales on lateral lines 50; in transverse series from insertion of dorsal to anal 10/15; gill rakers on first arch 12/19, the last one on upper limb the longest, 1.61 in orbit.

Body ovoid, compressed, dorsal and ventral outlines gently arched; mouth oblique, the lower jaw slightly longer; interorbital space very convex, wide, and with an impression anteriorly; snout equal to eye; nostrils placed closely one to the other, the anterior one with a cutaneous valve; jaws with villiform teeth, the outer enlarged, six conical canines anteriorly in each jaw; vomer and palatines with villiform teeth; no teeth on tongue; preopercle finely serrated.

Dorsal spines strong, the fourth longest, and contained 2.27 in head; the ninth dorsal ray somewhat produced, 2.15 in head; anal spines strong; the third spine longest, 3.28 in head, the second 3.63, the first shortest, half so long as the third, the seventh ray longest, 2.56 in head; pectoral falcate, a little longer than the head, reaching behind the vent; ventral fin not reaching the vent, their length 1.41 in head; caudal deeply forked, upper lobe a little longer, its length 2.56 times that of middle rays or almost equal to head.

Scales ctenoid, row parallel above and below lateral line, present on opercles; on cheeks in 6 rows below eye; limbs of opercle naked as in preorbital ring and dorsal of head, save for temporal scales in 4 or 5 series which are unconnected dorsally; caudal scaled on membranes nearly to tip.

Surface of stomach with many large conical projections. Pyloric coeca 7. Air bladder simple.

Colour in spirit dark blue, slightly paler below; dorsal and anal dark, the latter narrowly edged with white; pectorals and ventrals colourless.

The description of the external characters is based on the male type in the Zoological Laboratory, Imperial Fisheries Institute, Tokyo, 289 mm. long. The internal characters are given from an examination of a male, 338 mm. in length. Both were purchased at the Tokyo fish market, perhaps from Hatizyô Is., Prov. Idu.

This species is closely related to *V. xanthurus* externally and internally, but differs from it in the following points:—dorsal spine strong; pored scales few on lateral line; pyloric coeca 7 (in *V. xanthurus* 5); behind ethmoid a narrow flatty area of frontals; colour dark blue, not yellow on the dorsal side of body.

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